

### **Remarks**

Applicants have carefully reviewed the Office Action dated July 5, 2006. Claims 3-52 are pending, wherein claims 1-2 have been withdrawn from consideration, claims 3-52 have been rejected and claims 6 has been objected to. Claims 3, 5 and 52 have been amended with this paper and claims 4 and 6 have been cancelled.

### **Claim Amendments**

Claim 3 has been amended to include the elements of dependent claim 4. Support for amended claim 52 can be found, for example, in paragraph [0032] of the published application, where it states that a first polymer can be cross-linked, and paragraph [0026], where it states that a second polymer can be either cross-linked or non-cross-linked. Claim 5 has been amended in order to change the dependency of the claim.

### **Claim Objections**

Claim 6 is objected to because of the following informalities: The phrase 'Parmax SRP' is a tradename, and, therefore, it is asserted that the claim is indefinite. Claim 6 has been cancelled, rendering this objection moot.

### **35 U.S.C. §102 Rejections**

Claims 3, 6-10, 14-16, 19-24, 27-37, 39-42 and 51-52 were rejected under 35 U.S.C §102 (b) as being anticipated by Rau et al., U.S. Patent No. 6024722 (hereinafter "Rau"). Applicants respectfully traverse this rejection. In order for a reference to anticipate a claim, the reference must contain each and every element of the claim. See M.P.E.P. §2131.

Amended claim 3 recites a medical device comprising an elongated flexible element made from a first polymer which is a substituted poly(1, 4-phenylene). Rau does not disclose such a chemical compound. Because Rau does not disclose each and every element of claim 3, this reference cannot anticipate this claim. Because they are dependent on claim 3 and because they contain additional patentably distinct elements, Applicants assert that claims 6-10, 14-16, 19-24, 27-37, 39-42 are also allowable over this reference.

Claim 51 recites, in part, a medical device comprising a flexible elongate element, the flexible elongate element formed by a process including the steps of co-extruding the first and second polymers and not cross-linking the first polymer while cross-linking the second polymer.

Rau does not disclose this combination of elements, and as such Applicants assert that this reference cannot anticipate claim 51. In the Office Action, it was asserted that Rau discloses a thermoplastic (citing column 10, line 12 of Rau) and a cross-linkable polymer (citing the background of Rau, column 1, disclosing a thermoset polyimide), and as such this reference discloses all of the elements of claim 51.

However, claim 51 requires a first polymer comprising a rigid rod polymer and a second polymer compatible with the first polymer where these two polymers are co-extruded. In the background section of Rau, thermoset polyimide polymers are discussed, but they are not apparently discussed as being co-extruded with a thermoplastic rigid rod polymer. A co-extrusion of polymers as recited in claim 51 does not appear to be disclosed anywhere in Rau, and as such this reference does not disclose all elements of claim 51, and this reference cannot anticipate this claim.

Further, claim 52 has been amended to recite, in part, a medical device comprising a flexible elongate element formed by the process of co-extruding a first polymer comprising a thermoplastic rigid rod polymer and a second polymer compatible with the first polymer and cross-linking both the first and second polymers. As mentioned above, the disclosure of a thermoset polyimide in the background portion of Rau does not disclose this combination of elements. Rau simply does not appear to disclose co-extruding first and second polymers as described in claim 52. Because all elements of claim 52 are not disclosed in Rau, Applicants assert that this claim is allowable over this reference.

### **35 U.S.C. §103 Rejections:**

Claims 4-5, 11-13, 17, 25-26 and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rau. Applicants respectfully traverse this rejection. It was apparently asserted in the Office Action that, because Rau discloses a polymer that can "contain a substantial number of polyvalent aromatic groups such as polyphenylene" (see

column 9, lines 64-66 of Rau), that it would have been obvious to incorporate monomers from the class of substituted poly(1, 4-phenylene), and specifically benzoyl substituted 1, 4-phenylene, into a polymer for a medical device. Applicants respectfully disagree with this assertion.

In the chemical arts, “the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness.” See M.P.E.P. §2144.08, part II. Further, this portion of the M.P.E.P. lays out the procedure for an obviousness examination of such a chemical claim. M.P.E.P. §2144.08, Part V, states that “Office personnel should make express fact-findings relating to the *Graham* factors...” “The fact-findings should specifically articulate what teachings or suggestions in the prior art would have motivated one of ordinary skill in the art to select the claimed species or subgenus.”

Rather than using this procedure, it appears as though the Examiner simply stated that “it would therefore have been obvious for one of ordinary skill in the art to have selected benzoyl substituted 1, 4-phenylene units,” apparently because “benzoyl substituted 1, 4-phenylene units are among the known phenylene units.” (See paragraph 5 of the Office Action.) Applicants respectfully assert that this statement is purely conclusory, and, according to the process described in M.P.E.P. §2144.08, this cannot be sufficient for establishing a *prima facie* case of obviousness.

As mentioned above, M.P.E.P. §2144.08 states that, when a genus of chemicals is disclosed in a prior art reference and a subgenus or a species is recited in a pending claim, the standard obviousness analysis must still be applied to determine if the claim is obvious in light of the reference. Thus, the Examiner must still apply the *Graham* factors, and a motivation or suggestion must be found in the prior art for using the subgenus or species that is recited in the claim.

In the current Office Action, no suggestion or motivation to incorporate a substituted poly (1, 4-phenylene) into a medical device has been provided. As such, a *prima facie* case of obviousness has not been shown by the Examiner. Further, Applicants point out that Rau does not contain such a motivation or suggestion.

The substituted portion of the poly (1, 4-phenylene) can provide different properties, depending on what the poly (1, 4-phenylene) is substituted with. For

example, in some cases the substituted portions could increase the ability of the polymer to cross-link and in some cases the substituted portions could improve the processability of these compounds. As such, the subgenus of substituted poly(1, 4-phenylene) can lead to advantageous properties that are not discussed in Rau. Simply put, Rau does not appear to discuss anywhere a suggestion or motivation for using a substituted poly(1, 4-phenylene). As such, the Rau disclosure cannot render the subject matter of former claim 4 obvious. Because claim 3 has been amended to include the subject matter of claim 4, Applicants assert that claim 3 is not obvious in light of Rau. Further, because they are dependent on claim 3 and because they contain additional patentably distinct elements, Applicants also assert that claims 5, 11-13, 17, 25-26 and 38 are allowable over this reference.

Claims 45-50 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rau, in view of Weissleder et al., U.S. Patent No. 5514379 (hereinafter “Weissleder”). Applicants respectfully traverse this rejection. In order for a combination of references to render a claim obvious, there must be some motivation to combine the references and each and every element of the claim must be present in the combination. See M.P.E.P. §2143.01 and §2143.03. As mentioned above, Rau does not disclose a polymer comprising a substituted poly(1, 4-phenylene), and it does not contain a suggestion or motivation to use such a compound. In addition, Weissleder does not disclose the missing elements or the missing motivation. As such, for at least these reasons, Applicants assert that claims 45-50 are allowable over this combination of references.

Claims 43 and 44 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rau, in view of Lau et al., U.S. Patent No. 6517570 B1 (hereinafter “Lau”). Applicants respectfully traverse this rejection. In order for a combination of references to render a claim obvious, there must be some motivation to combine the references and each and every element of the claim must be present in the combination. See M.P.E.P. §2143.01 and §2143.03. As mentioned above, Rau does not disclose a polymer comprising a substituted poly(1, 4-phenylene), and it does not contain a suggestion or motivation to use such a compound. In addition, Lau does not disclose the missing elements or the missing motivation. As such, for at least these reasons, Applicants assert that claims 43 and 44 are allowable over this combination of references.

**Conclusion**

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

SHEN-PING ZHONG et al.

By their Attorney

Date: Oct. 5, 2006

  
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Glenn M. Seager, Reg. No. 36,926  
CROMPTON, SEAGER & TUFTE, LLC  
1221 Nicollet Avenue, Suite 800  
Minneapolis, Minnesota 55403-2420  
Tel: (612) 677-9050